



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBT18601
Job Sheet 179961



5015

Part No: RBT18601

Job Qty: 2 ea

DAS
21
9-89

Part Name: Main Rotor Swashplate ReGreasing Tool



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/27/18

Job Tracking No:

Due Date: 7/11/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: IPP Rev.A 17.09.22 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup	Run	Workcenter / Supplier	Lead Time	
					hrs	Hrs			
90	Start up Operation	2 Ea	7/11/18	7/11/18	0.00	0.00	Start Up Waterjet		SC 18/06/18
110	Waterjet	2 pcs	7/11/18	7/11/18	0.00	0.20	Waterjet 2 OMAX		SC 18/06/18
130	CNC Vertical Machining	2 pcs	7/11/18	7/11/18	0.00	2.00	MORI NV5000-1		J.C.L.
140	QC	2 pcs	7/11/18	7/11/18	0.00	0.00	QC2 Machining-4		SC 18-25-07
150	QC	2 pcs	7/11/18	7/11/18	0.00	0.00	QC8 Machining-4		B. 18-07-30
170	Outsource	2 pcs	7/11/18	7/11/18	0.00	0.00	Outsource4		SC 18-1-30
180	Packaging	2 pcs	7/11/18	7/11/18	0.00	0.00	Packaging2		AUG 08 2018
190	QC	2 pcs	7/11/18	7/11/18	0.00	0.00	QC6		38 18/08/08
200	Small Fab	2 pcs	7/11/18	7/11/18	0.00	0.50	Small Fab-7		38 9-89 JAS
210	QC	2 pcs	7/11/18	7/11/18	0.00	0.00	QC5		38 9-89
220	Packaging	2 pcs	7/11/18	7/11/18	0.00	0.00	Packaging3-1		21 9-89
230	QC21-FG	2 Ea	7/11/18	7/11/18	0.00	0.00	QC21		21 AUG 20 2018

Part Op 110 - 1-Cut as per Dwg ***CUT QTY2 PER ASSEMBLY*****Identify each pair as per notes*** Dwg Rev. 1C Prog
Descriptions: Rev: 1C (Red Barn folder) 2-Deburr if necessary

130 - Machine as per DWG. Folio DEBURR ***Identify each pair as per notes***

170 - -Issue P/O to GROUPE ALTECH; PO 040633 -ANODIZE COLOR RED, PER IAW MIL-A-8625 TYPE-2 CLASS-2, Water sealant -Material type; -Certificate of Conformity is required

200 - Assemble as per DWG and cut packings at split line as per notes.

GA136

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6B0.500X05.000	6061-T6 Bar .500 X 5.00	2.4000 ft (1.2 ea)	90-Start up Operation	
0-345	345 O-Ring	2 Ea (1 ea)	200-Small Fab	3042910
0-353	353 O-Ring	2 Ea (1 ea)	200-Small Fab	3019337
13-14X3CSC	1/4 - 20 X 3 Socket Gap	4 Ea (2 ea)	200-Small Fab	3019339
15-GF637	1/4-28 45 Deg Short Grease Fitting	4 Ea (2 ea)	200-Small Fab	3019335

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M6061T6B0.500X05.000	2	58	0
200-Small Fab	0-345	2	17	0
	0-353	2	17	0
	13-14X3CSC	4	30	0
	15-GF637	4	30	0

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS		Completed By		
Part No. _____		☐ Rework ☐ Scrap ☐ Use-as-is		☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab		☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier		☐ Engineering ☐ Quality ☐ Other
NCR No. _____		☐ Suspected Unapproved		☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite		☐ Misaligned/off center		☐ Turning Sequence
Date: _____		Step #: _____		QTY Effective: _____		MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				
				QC / QA Coordinator Approval				
				Lead hand / Supervisor Approval Verification				

Environment _____

Design _____

Doc/Date _____

Equip/Tooling _____

Handling/Pre _____

Material _____

Internal Transport _____

Tribal Knowledge _____

LOA _____

Substation _____

Past Expiry Date _____

Misidentified _____

Container No: S085181

Part: RBT18601

Job No: 179961

Serial No/Batch: S085181

Revision: 1C

Inspector: _____

Exp Date: _____

Instructions: _____

Wave/Twist in Tube _____

Marks/Chatter _____

Process Improvement _____

Manufacturing Process _____

Past Due _____

OTHER: _____

Power Loss/Surge _____

Folio/Program _____

Grain _____

Weld _____

Wrong Stock Pulled _____

Out of Sequence _____

Off-set _____

Mislabeled _____

Fit/Function _____

Misaligned/off center _____

Positioned Wrong _____

Outside Dimensions _____

Over/Under tolerance _____

Part Incorrect _____

Part Lost/Missing _____

Part Moved _____

Drawing _____

Finish _____

Mistread _____

Turning Sequence _____

DART AEROSPACE

Container No: S085181

Part: RBT18601

Job No: 179961

Serial No/Batch: S085181

Revision: 1C

Inspector: _____

Exp Date: _____

Instructions: _____

Dart Aerospace Ltd.

1270 Aberdeen Street

Hawkesbury, ON K6A 1K7

CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com

Date: 06/28/18

Part Specifications

Specifications could not be found.

Plex 6/27/18 8:39 AM Dart.lajeunesse.marie

DART AEROSPACE LTD		Work Order:	179961
Description: Main Rotor Sunship Gate Regreasing tool		Part Number:	RBT18601-K
Inspection Dwg: RBT18601	Rev: 1C	Page 1 of 1	

INSPECTION SHEET

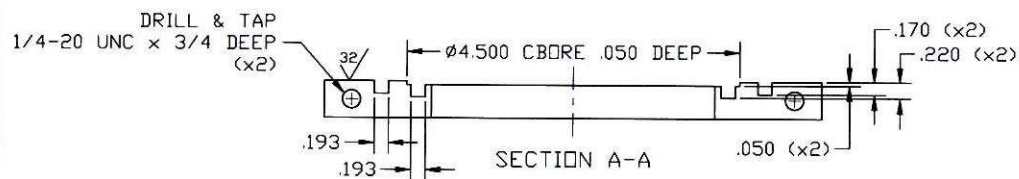
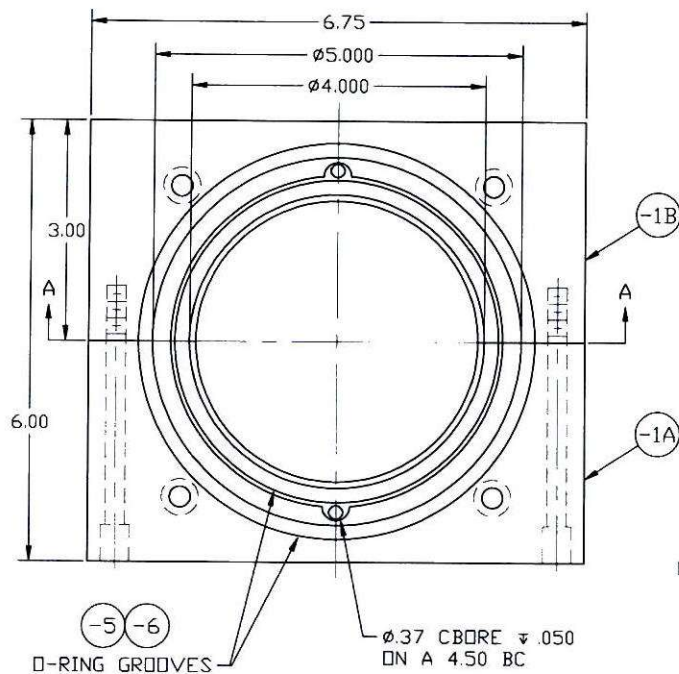
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
6.75	± 0.030	6.755	✓		VSC-01	
6.00	± 0.010	6.000	✓		Caliper	3CL-08
5.000	± 0.005	5.000	✓			
4.000	± 0.005	4.000	✓			
4.65	± 0.010	4.650	✓			
4.235	± 0.005	4.235	✓			
4.235	± 0.005	4.235	✓			
6.000	± 0.005	6.000	✓			
0.375	± 0.005	0.375	✓			
0.390	± 0.005	0.389	✓			
0.265	± 0.005	0.266	✓			
$\frac{1}{2}$	± 0.031	0.500	✓			
0.281	± 0.005	0.283	✓			
0.300	± 0.005	0.300	✓			
0.250	± 0.010	0.255	✓			
1/4-20 UNC	N/A	0.8	✓		GO - NO GO	
1/4-20	± 0.031	0.790	✓			
4.500	± 0.005	4.500	✓		Caliper	3CL-08
0.050	± 0.005	0.052	✓			
0.193	± 0.005	0.193	✓			
0.170	± 0.005	0.172	✓			
0.220	± 0.005	0.222	✓			
1/4-28 UNE	N/A	0.8	✓			

Measured by: SC/KC.V	Checked by: D	QC Inspector:
Date: 18/06/28	Date: 18-07-30	Date:

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

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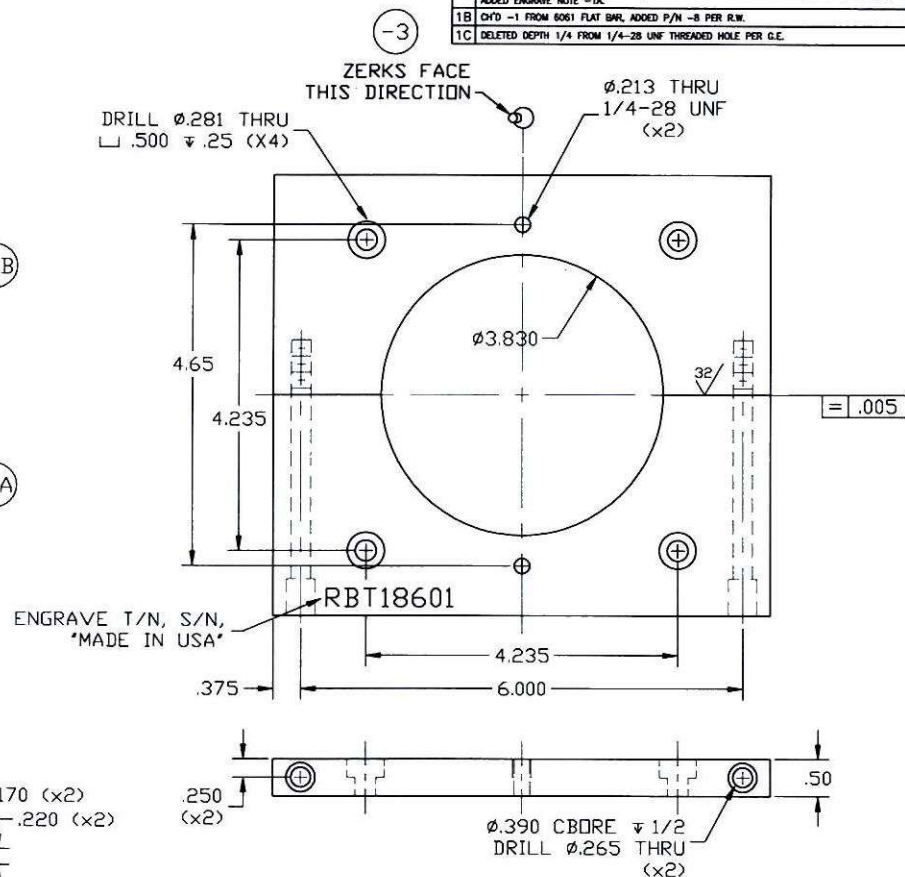


NOTES:

1. IDENTIFY EACH PAIR.
2. ASSEMBLE & CUT PACKINGS AT SPLIT LINE.

ASSY/ISSY QTY	QTY	B/O PART #	DESCRIPTION	MATERIAL	M/F INFORMATION OR SPECIFICATIONS
		B/O -1	2 SWASH PLATE	6061 FLAT BAR	1/2 x 3 x 6-3/4
		B/O -3	2 ZERK		1/4-28 UNF x 45"
		B/O -5	1 O-RING		2-34SN70 345 BUNAN
		B/O -6	1 O-RING		2-35SN70 353 BUNAN
		B/O -8	2 SOCKET HEAD CAP SCREW		1/4-20 UNC x 3

REVISIONS					
REV	DESCRIPTION	DATE	INITIAL	APPROVAL	
1	ADDED ZERK DIRECTION & CHANGE FROM 3-1/4 SHZS.	11/27/06			
1A	CH'D TITLER LOCK & REVISION BLOCK, CH'D REVISIONS FROM ALPHABETICAL TO NUMERICAL, ADDED ENGRAVE NOTE - 1X.	1/13/10	RUC	RW	
1B	CH'D -1 FROM 6061 FLAT BAR, ADDED P/N -8 PER R/W.	6/23/11	RUC	RW	
1C	DELETED DEPTH 1/4 FROM 1/4-28 UNF THREADED HOLE PER G.E.	5/23/12	RUC	SE	



 RED BARN MACHINE					
TITLE SWASH PLATE REGREASING TOOL					
DWG NO.		RBT18601			REV IC
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XXXX + .005 XX - .01 FRACTIONS & 1/32 X ± .01 ANGLES ± 5°				DRAWN BY: CHRIS PARR APPROVED: <i>D. Hall</i> DATE: 10-1-91 BY: [Signature]	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES GTS & 45° PER DWS 2. DIMENSIONAL UNITS APPLY AFTER PLATING				MATERIAL: ANODIZE RED USED ON MODEL: MD-500	
SCALE:	NTS	DATE:	3-16-01	SHEET:	1 of 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040622**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO040622
PO Date: 7/27/18
Due Date: 7/31/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	174443	RBW6305G01232-3G-1	Receiver -Issue P/O to Groupe Altech: P/O _____ -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color: Yellow -Certificate of Conformity is required	Firmed	-	7/31/18	12 pcs	0 pcs	12 pcs	\$14.5833333/pcs	\$175.00
							12 x	AUG 03 2018			
2	178201	RBEM262V3000101-21	Plate -Issue P/O to GROUPE ALTECH: -ANODIZE COLOR CLEAR, PER IAW MIL-A-8625F TYPE 2 CLASS 1, Water sealant -Certificate of Conformity is required	Firmed	-	7/31/18	6 pcs	0 pcs	6 pcs	\$20.00/pcs	\$120.00
							6 x	AUG 08 2018			
3	179860	SWA3-300	Wire Clamp -Issue P/O to Groupe Altech: -ANODIZE COLOR BLACK, PER IAW MIL-A-8625F TYPE 3 CLASS 2, Water sealant -Certificate of Conformity is required	Firmed	-	7/31/18	19 pcs	0 pcs	19 pcs	\$6.31578947/pcs	\$120.00
							19 x	AUG 08 2018			

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	178356	RBT400221-109	Turnbuckle -Issue P/O to GROUPE ALTECH; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-C-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type Stress Proof; -Certificate of Conformity is required	Firmed	-	7/31/18	12 pcs	0 pcs	12 pcs	\$10.00/pcs	\$120.00
							12 X	AUG 03 2018			
5	181471	C10-6	Trunnion 1-Issue P/O to Groupe Altech; P/O _____ RC 44-46 2-Nickel plate - 0.0009-0.0011, Bake after plating 3- Certificate of Conformity is required	Firmed	-	7/31/18	1 pcs	0 pcs	1 pcs	\$240.00/pcs	\$240.00
							1 X	AUG 01 2018			
6	179961	RBT18601	Main Rotor Swashplate ReGreasing Tool -Issue P/O to GROUPE ALTECH; PO _____ -ANODIZE COLOR RED, PER IAW MIL-A-8625 TYPE-2 CLASS-2, Water sealant -Material type; -Certificate of Conformity is required	Firmed	-	7/31/18	2 pcs	0 pcs	2 pcs	\$60.00/pcs	\$120.00
							2 X	AUG 08 2018			
					DAS 61 9-89						DAS 38 9-89
7	180205	RBW6205G19332-3G-1	Draw Bolt -Issue P/O to Groupe Altech: P/O _____ -Zinc plate, ASTM B633 TYPE 2 SC2 -Color yellow -Certificate of Conformity is required	Firmed	-	7/31/18	7 pcs	0 pcs	7 pcs	\$12.8571429/pcs	\$90.00
							7 X	AUG 03 2018			
8	177589	SK145-0115-20	Clamp Bar ISSUE P/O: _____ PASSIVATE AS PER DWG ACCORDANCE WITH ASTM A967 C OF C IS REQUIRED	Firmed	-	7/31/18	20 pcs	0 pcs	20 pcs	\$5.00/pcs	\$100.00
							20 X	AUG 03 2018			
Grand Total:											\$1,085.00

Order Notes

Order Notes**Procurement Quality Clauses**

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/30/18 2:34 PM dart.tsimiklis.chrisoula



Certificat de Conformité / Certificate of Compliance

(011405-4)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

011405- 4

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
06-Aug-2018		Aman		040622				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC/Qty	Qté Scrap/	À venir/ Back Order
2	RBEM262V3000101-21 Rev. ✓	RBEM262V3000101-21 01-ANO-CLEAR [ANODIZE CLEAR] MIL-8625F TYPE 2 CLASS 1	ANODIZE CH	6	6 ✓	0	0	0
3	SWA3-300 ✓ Rev. ✓	SWA3-300 01-ANO-BLACK [ANODIZE BLACK] MIL-A-8625F TYPE 3 CLASS 2	ANODIZE CH	19	19 ✓	0	0	0
6	RBT18601 ✓ Rev. ✓	RBT18601 01-ANO-RED [ANODIZE RED] DAS 61 9-89 MIL-A-8625 TYPE 2 CLASS2	ANODIZE CH	2	2 ✓	0	0	0 DAS 38 9-89

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness
Inspecteur Qualité
Quality Inspector
Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.